

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
25 August 2005 (25.08.2005)

PCT

(10) International Publication Number  
**WO 2005/077522 A1**

(51) International Patent Classification<sup>7</sup>: **B01J 19/00**,  
19/18, 19/24, C08F 10/00

(21) International Application Number:  
PCT/EP2005/050625

(22) International Filing Date: 14 February 2005 (14.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
04100597.6 13 February 2004 (13.02.2004) EP  
04100570.3 13 February 2004 (13.02.2004) EP

(71) Applicant (for all designated States except US): **TOTAL  
PETROCHEMICALS RESEARCH FELUY** [BE/BE];  
Zone Industrielle C, B-7181 Seneffe (Feluy) (BE).

(72) Inventor; and

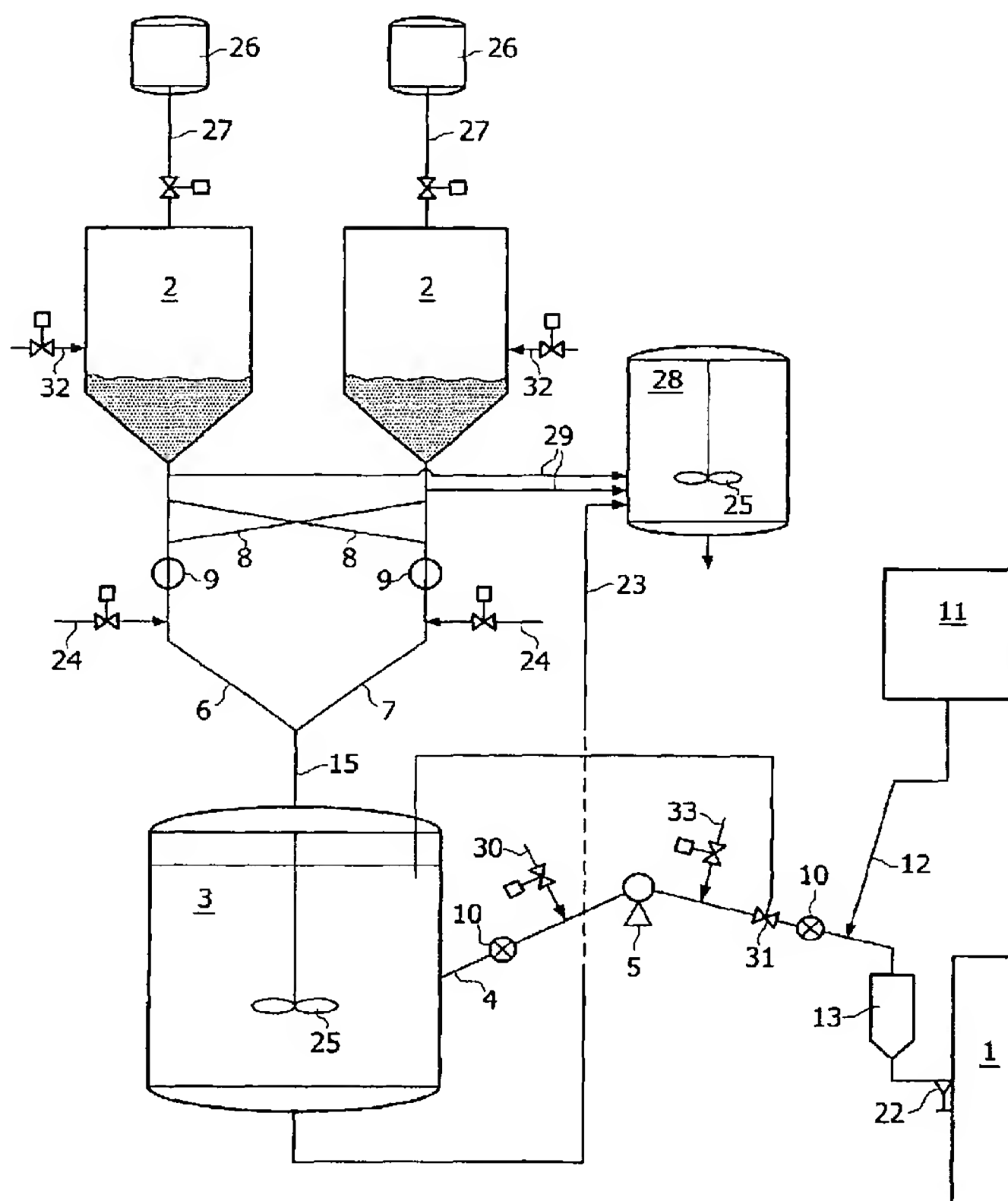
(75) Inventor/Applicant (for US only): **FOUARGE, Louis**  
[BE/BE]; Sleutelpasstraat, 4, B-B - 1700 DILBEEK (BE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR PREPARING AND SUPPLYING CATALYST SLURRY TO A POLYMERISATION REACTOR.



(57) Abstract: The present invention relates to an apparatus for preparing and supplying catalyst to an ethylene slurry loop polymerisation reactor and to an apparatus for controlling the injection of catalyst slurry in a polymerization reactor wherein polyethylene is prepared. The present invention a Iso relates to a method for optimising catalyst supply to a polymerisation reactor. The diluted catalyst is transferred to the reactor (1) using a membrane pump (5) controllable in function of the concentration of a reactant in said reactor (1).

**Published:**

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*